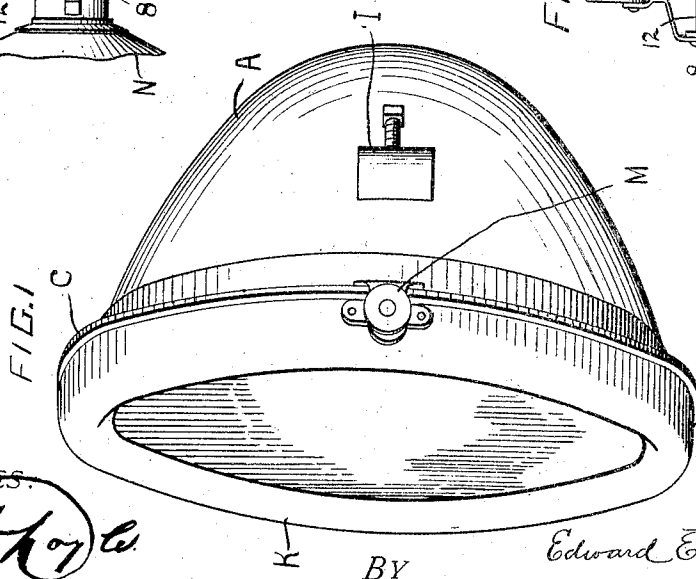
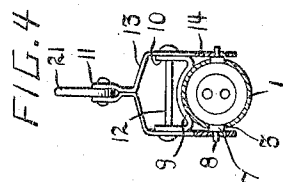
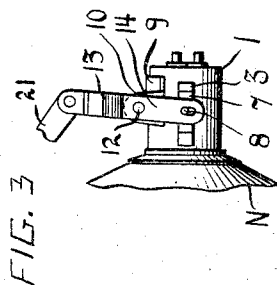
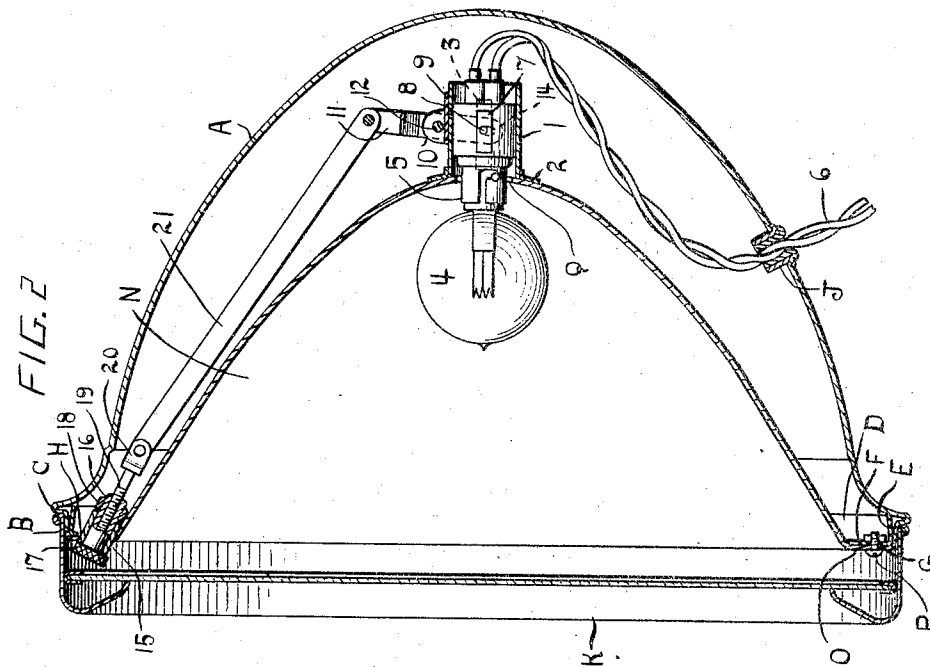


E. E. TAYLOR.
LAMP.
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1,015,219.

Patented Jan. 16, 1912.



WITNESSES.

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LAMP.

1,015,219.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EDWARD E. TAYLOR, a citizen of the United States, residing at Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

The invention relates to lamps adapted for use in connection with conveyances of any type such, for example, as automobiles, cars, or other vehicles, the object being the provision of a lamp having a body with a substantially plain exterior surface which will not catch and retain dust and dirt and which can easily be cleaned and polished.

A further object is the provision of a lamp adapted for electric lighting wherein a bulb is used in connection with a parabolic or other reflector, and having means for moving the bulb relative to the reflector, said means to be concealed from view and the main parts thereof inclosed within a space from which dust and all foreign substances shall be excluded. Where a parabolic reflector is used and the lamp located at the focus all the reflected rays are projected in parallel lines and to a great distance giving a light of intense brilliancy. By moving the lamp to a position in front of the focus the reflected rays are converged to a point; and by moving the lamp to a position back of the focus the reflected rays are divergent or spread over a large area with diminished brilliancy. To utilize these principles of optics means are provided for shifting the lamp relative to the reflector so that in much frequented streets the reflected rays of light may be diverged or spread over a large area with a diminished illumination, and so that outside of cities the rays may be projected parallel to a great distance, or caused to converge to a point less distant, with an intense brilliancy.

The invention consists in certain novelties of construction and combinations of parts as herein set forth and claimed.

The accompanying drawing illustrates an example of the physical embodiment of the invention and improvements constructed and arranged according to the best mode of procedure so far devised for the purpose, but other modes of constructing and arrang-

ing the means for shifting the electric lamp may be adopted which are substantial equivalents of those illustrated and described.

Figure 1 is a perspective view of the lamp. Fig. 2 is a vertical section. Figs. 3 and 4 are illustrations of details of construction.

Referring to the several figures, the letter A designates the body or shell of the lamp stamped or spun to the general shape of a parabolic, hyperbolic or elliptical conoid; B, a curved or circular flange at the edge of the shell; C, a curved or circular bead adjacent the flange, the said flange and bead forming a seat for the edge of the door when closed; D, a curved or circular ring angular in cross section located inside the flange B said ring having a flange E which is secured to the inner surface of the flange B and another flange F which extends inwardly from the edge of the flange B, as shown; G, threaded reinforced openings in flange F to receive screws; H, a recess formed by removing part of the metal from the flange F said recess being provided to receive a thumb nut; I, props at opposite sides of the shell to receive a fork; J, a sleeve set in the shell with an opening for the passage of electrical conductors; K, the door with a glass set therein; M, the knob fastening device; N, a parabolic reflector; O, a curved or circular perforated flange at the edge of the reflector matching the flange F of the ring secured to the shell; P, screws holding the reflector in place; and Q is a hole at the vertex of the reflector. The door is provided with a suitable hinge, not shown.

In connection with the reflector is an electric lamp, normally located at the focus of the parabolic, or concave reflector when a reflector of other shape is used, and means for adjusting it to the front or rear of the focal point. Secured to the rear surface of the reflector is a small cylinder 1 with its axis coinciding with the axis of the reflector and the opening in the vertex thereof; 2, a flange at the end of the cylinder soldered to the reflector; 3, oppositely disposed slots in the wall of the cylinder; 4, the lamp; 5, a lamp socket to which the lamp is detachably secured; 6, 6 the electrical conductors passed through the sleeve J and secured to insulated terminals in the socket; 7, guide plates

secured to opposite sides of the socket and located and movable within the slots 3, thus holding the socket relative to the cylinder but allowing it to be moved longitudinally relative thereto; 8, 8 journals or studs projecting from the guide plates; 9, a metallic base with perforated fulcrum arms 10, 10 secured to the exterior surface of the cylinder; 11, a forked lever pivoted to the arms 10, 10 by a fulcrum pin 12 passed through holes in the lever and the arms, said lever having a power arm 13 and weight arms 14, 14 each with a slot at the end within which slots are located the studs 8, 8, the slots allowing the studs to move therein when the lever is turned about the fulcrum pin; 15, a sleeve fixed within an opening in the flange O of the reflector; 16, a tube within the sleeve having at one end a milled thumb nut 17 and at the other end and bearing against the end of the sleeve 15 a washer 18, said tube being interiorly threaded, and said thumb nut, tube and washer loosely engaging the sleeve so they can rotate together within the sleeve; 19, a bolt with a threaded shank engaging the threads in the tube and having a slotted and perforated head 20, as shown; and 21 is a bar or rod pivoted at one end to the slotted head of the bolt and at the opposite end pivoted to the power arm of the forked lever.

By rotating the thumb nut the lever 11 will be turned about the fulcrum pin and the electrical lamp and socket be moved longitudinally relative to the cylinder. The lamp may thus alternately be adjusted to positions in front of or back of the focal point of the reflector. Obviously, when the lamp door is closed the thumb nut is concealed, and by locating the electric lamp adjusting mechanism as described the conical end of the lamp shell is maintained integral unmarred and undisfigured by a projection of any kind whatever. Moreover, the space between the shell and reflector is ample to receive the operating mechanism, and this space also is entirely closed so dust and dirt, air, or moisture or water cannot enter.

The invention is not restricted to the particular shapes of lamp shell or reflector shown, as it may be embodied with shells and reflectors of other shapes without constituting substantial departures, inasmuch as the main idea comprises a shell and reflector combined to form a substantially closed space between them from which foreign matter, such as dust and dirt, are excluded and within which space are located the main parts of the electric lamp adjusting mechanism.

What I claim is:

1. A lamp comprising a shell, a reflector within the shell, said shell and reflector being spaced apart, an illuminating device movably supported at the vertex of and by

the reflector, and a pivoted lever in connection with the illuminating device for moving said device relative to the reflector

2. A lamp comprising a shell, a reflector within the shell, said shell and reflector being spaced apart, an illuminating device movably supported at the vertex of the reflector, and means at the rear of the reflector connected with said device and extended forward to the edge of the said reflector for moving the device relative to the reflector.

3. A lamp comprising a shell, a reflector within the shell, the front edges of the shell and reflector being united and the rear portions spaced apart to form an inclosure, a movably supported electric lamp at the vertex of the reflector, and means extended outside the shell and reflector for moving the electric lamp relative to the reflector, said means comprising a movable lever connected with the lamp and a bar or rod extended to the edge of the reflector, and means for moving said bar or rod and lever located outside the shell and reflector.

4. The combination with a lamp shell, of a reflector with an opening at the vertex, an electric lamp supported by means located at the opening, and mechanism connected with the lamp and extended to the front of the reflector for moving the lamp relative to the reflector.

5. The combination with a lamp shell, of a reflector having an opening at the vertex, a lamp with a socket located within the opening, and means connected with the said socket and extended to the front of the reflector for moving the lamp and socket relative to the reflector.

6. The combination with a lamp shell having a door, of a reflector with an opening at the vertex, a cylinder at the opening, a lamp with its socket movably supported in the cylinder, and means connected with the socket and extended to a position adjacent the edge of the door when closed for moving the lamp relative to the reflector.

7. The combination with a lamp having a shell and a door, of a reflector with an opening at the vertex, a cylinder at the opening, a lamp with its socket movably supported in the cylinder, and means comprising a pivoted lever connected with the socket, a bar or rod secured to the lever and extended to the edge of the reflector, and a thumb nut outside the reflector engaging a threaded element at the end of the bar or rod, for moving the lamp relative to the reflector.

8. The combination with a lamp having a shell, of a reflector within the shell, an opening at the vertex of the reflector, a cylinder in connection with the said opening, a lamp with a socket supported by the cylinder, a lever fulcrumed on the cylinder and in pivotal connection with the socket, a bar

or rod pivoted to the power arm of the lever and extended to a position adjacent the edge of the reflector, a threaded bolt pivoted to the bar or rod, a thumb nut outside 5 the reflector, and a threaded element connecting the thumb nut and the threaded bolt, for the purpose set forth.

9. The combination with a lamp shell having a closed rear end, of a reflector within the shell spaced apart from the shell and the edges of the shell and reflector united, a lamp movably supported at the vertex of and by the reflector, a lever connected with the lamp, and means extended from said lever to a position outside of the inclosed 15 space between the shell and reflector for moving the lamp.

10. A lamp comprising a shell having an inwardly projecting flange at its edge, a reflector having an outwardly projecting 20 flange at its edge matching the inwardly projecting flange of the shell, means consisting of a ring D having two flanges and screws passed through one of the flanges of the ring and the flange of the reflector for 25 detachably uniting the said flanges of the shell and reflector, and a door hinged to the shell.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD E. TAYLOR.

Witnesses:

NATHAN E. COLLINS,
M. PERRY SARGENT.